

New York Grape Commodity Survey Targets 2018 Summary/Final Report

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- **Grape Commodity Survey (GCS)**
 - *Lobesia botrana* – **European Grape Vine Moth (GVM)**
 - *Eupoecilia ambiguella* – **European Grape Berry Moth (EGBM)**
 - *Epiphyas postvittana* – **Light Brown Apple Moth (LBAM)**
 - *Candidatus Phytoplasma australiense* – **Australian Grapevine Yellow**
 - *Candidatus Phytoplasma vitis* – **Flavescence dorée**
 - *Lycorma delicatula* - **Spotted Lanternfly**
 - **Solbur disease**

The 2018 Grape Commodity Survey was conducted in conjunction with Cornell Cooperative Extension's NYS IPM Program and Grape Programs in the main growing regions of New York State; Lake Erie, Finger Lakes, Long Island and the Hudson Valley. Traps were placed in vineyards starting in June in all regions and were serviced biweekly 7 times. The three target moths involved in the survey are: European Grapevine Moth, European Grape Berry Moth, and Light Brown Apple Moth.

372 traps were deployed in 42 vineyards total; 8 in the Hudson Valley, 10 in Long Island, 16 in the Finger Lakes Region and 8 in the Lake Erie Region. In addition traps were deployed in 4 nurseries total; 2 in the Finger Lakes Region and 2 in the Lake Erie Region.

1. European Grape Vine Moth (GVM) - *Lobesia botrana*

Delta traps and lures were deployed following the protocol of suspending the trap at a height of 3 feet in the grape trellis and at a distance of 6-feet into the 2nd row in from the SW corner of the vineyard. Vineyards that had been recently planted using vines sourced from California, and other west coast, nurseries were given priority for participation in the program. In vineyards consisting of multiple varieties, traps were placed in the southeast corner of each of the blocks where the variety changed. Traps were deployed in 8 vineyards in the Hudson Valley (Orange, Dutchess, and Ulster Counties) 10 in Long Island (Suffolk County), 16 in the Finger Lakes Region (Steuben, Ontario, and Yates Counties) and 8 in the Lake Erie Region (Chautauqua County). In addition traps were deployed in 4 nurseries total; 2 in the Finger Lakes Region (Ontario and Yates Counties) and 2 in the Lake Erie Region (Chautauqua County). 124 traps were placed by 4 project cooperators in these 42 vineyards and 4 nurseries. Traps were maintained in the field and serviced every two weeks resulting in seven biweekly visits.

4,326 moths were collected from the traps July through October (116 in Long Island, 3304 in Hudson Valley, 575 in Finger Lakes, and 331 in Lake Erie). Prescreening as well as identification of suspected samples by the Insect Diagnostic Laboratory at Cornell found no evidence of the European Grape Vine Moth.

2. European Grape Berry Moth (EGBM) - *Eupoecilia ambiguella*

Traps and lures were deployed following the protocol of suspending the trap at a height of 3 feet in the grape trellis at the end post. Traps were deployed in 8 vineyards in the Hudson Valley (Dutchess, and Ulster Counties) 10 in Long Island (Suffolk County), 16 in the Finger Lakes Region (Steuben, Ontario, and Yates Counties) and 8 in the Lake Erie Region (Chautauqua County). In addition traps were deployed in 4 nurseries total; 2 in the Finger Lakes Region (Ontario and Yates Counties) and 2 in the Lake Erie Region (Chautauqua County). 124 traps were placed in these 42 vineyards and 4 nurseries. Traps were maintained in the field and serviced every two weeks resulting in seven biweekly visits.

13,970 moths were collected from the traps June through September (1,746 in Long Island, 8,567 in Hudson Valley, 1,570 in Finger Lakes, and 2,087 in Lake Erie). Prescreening as well as identification of suspected samples by the Insect Diagnostic Laboratory at Cornell found no evidence of the European Grape Berry Moth. Seven traps with possible positive samples were submitted yielding 207 negative IDs for the target moth.

3. Light Brown Apple Moth (LBAM) - *Epiphyas postvittana*

Delta traps and lures were deployed following the protocol of suspending the trap at a height of 3 feet in the grape trellis and at a distance of 6-foot into the 2nd row in from the SW corner of the vineyard. Vineyards that had been recently planted using vines sourced from California, and other west coast, nurseries were given priority for participation in the program. In vineyards consisting of multiple varieties, traps were placed in the southeast corner of each of the blocks where the variety changed. Traps were deployed in 8 vineyards in the Hudson Valley (Orange, Dutchess, and Ulster Counties) 10 in Long Island (Suffolk County), 16 in the Finger Lakes Region (Steuben, Ontario, and Yates Counties) and 8 in the Lake Erie Region (Chautauqua County). In addition traps were deployed in 4 nurseries total; 2 in the Finger Lakes Region (Ontario and Yates Counties) and 2 in the Lake Erie Region (Chautauqua County). 124 traps were placed by 4 project cooperators in these 42 vineyards and 4 nurseries. Traps were maintained in the field and serviced every two weeks resulting in seven biweekly visits. All traps were pulled from vineyards by the end of September to facilitate grape harvest.

4,132 moths were collected in the traps from June through October (26 in Long Island, 3,379 in Hudson Valley, 261 in Finger Lakes, and 466 in Lake Erie). Prescreening as well as identification of suspected samples by the Insect Diagnostic Laboratory at Cornell found no evidence of the Light Brown Apple Moth. Three traps with possible positive samples were submitted yielding 3 negative IDs for the target moth.

A visual inspection for Spotted Lanternfly was conducted during servicing in areas near the vineyards and nurseries used to conduct the Grape Commodity Survey, no evidence of Spotted Lanternfly was found. While monitoring was conducted for all life stages of SLF, due to their size, SLF adults and egg masses were more likely to be found. Tree of Heaven/Paradise Tree (*Ailanthus altissima*) is the preferred host of SLF. Scouting for Tree of Heaven was conducted in the areas near the vineyards and nurseries participating in the project and those identified were examined during servicing of traps. No life stage of spotted lanternfly was found during the 2018 season as part of the project.

Visual Inspection for Australian Grapevine Yellows, Flavescence doree and Solbur disease

A visual inspection for Australian Grapevine Yellows and Flavescence doree was conducted in the same vineyards and nurseries used to conduct the Grape Commodity Survey (GCS). Visual examinations were conducted in 8 vineyards in the Hudson Valley (Orange, Dutchess, and Ulster Counties) 10 in Long Island (Suffolk County), 16 in the Finger Lakes Region (Steuben, Ontario, and Yates Counties) and 8 in the Lake Erie Region (Chautauqua County). In addition visual examinations were done in 4 nurseries total; 2 in the Finger Lakes Region and 2 in the Lake Erie Region. There were no reports of Australian Grapevine Yellows or Flavescence doree in any of the 42 vineyards or 4 nurseries involved in the survey.

Virus Sampling in the 2018 Grape Commodity Survey Project

Virus sampling was done on an “as seen” basis. A visual inspection for Grapevine Red Blotch and leafroll was conducted in the same vineyards and nurseries used to conduct the Grape Commodity Survey (GCS). Visual examinations were conducted in 8 vineyards in the Hudson Valley (Orange, Dutchess, and Ulster Counties) 10 in Long Island (Suffolk County), 16 in the Finger Lakes Region (Steuben, Ontario, and Yates Counties) and 8 in the Lake Erie Region (Chautauqua County). In addition visual examinations were done in 4 nurseries total; 2 in the Finger Lakes Region and 2 in the Lake Erie Region. Some suspect vines have been sampled throughout the 2018 growing season and flagged for follow-up.

The viruses tested for include:

- **Grapevine Leafroll – associated virus type 1 (GLRaV-1).**
- **Grapevine Leafroll – associated virus type 2 (GLRaV-2).**
- **Grapevine Leafroll – associated virus type 3 (GLRaV-3).**
- **Grapevine Leafroll – associated virus type 4 (GLRaV-4).**
- **Solbur disease**
- **Flavescence doree**
- **Grapevine Red Blotch virus (GRDB)**

Results:

215 samples were collected during scouting. 46 tested positive for leaf roll. 20 tested positive for Red Blotch and 9 samples tested negative for leaf roll.